

REMARKS

Box 10 of the Office Action Summary indicates that the drawings filed on 10/03/04 are objected to by the Examiner. **No reason for such objection, however, is set forth.** Accordingly, it is not clear whether such box was inadvertently checked, or if the drawings are in fact objected to for some reason. **Clarification of such objection is accordingly respectfully requested.**

Claim Rejections - 35 USC § 112

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states it is unclear how the conductive color filter in independent claim 1 can comprise a layer of carbon nanotubes covered by a layer of colored polymeric resin binder, and be further defined in dependent claim 22 as a single layer having a thickness. Claim 22 has been amended, consistent with specification page 7, lines 3-11, to refer to a film having a thickness comprised of the layers of carbon nanotubes and colored polymeric resin binder which is conductive through the thickness of the film. Such amendment is also consistent with the Examiner's assumption that Applicant's intent in claim 22 is to require the conductive filter is conductive through the thickness of the resultant film which is multilayered as amended in independent claim 1. Reconsideration of this rejection is accordingly respectfully requested.

Claim Rejections - 35 USC § 102

Claims 1, 5-6, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Glatkowski (WO 02/076724 A1). Regarding claim 1, the Examiner states Glatkowski teaches a filter (page 14, lines 23-24), comprising a layer of nanotubes covered by a layer of polymeric resin binder (page 13, lines 16-17); the nanotubes are carbon nanotubes which form a conductive film (page 9, lines 1-7); and the polymeric resin binder is colored (coloring agent, page 15, lines 5-6), providing a conductive color filter. This rejection is respectfully traversed.

Contrary to the Examiner's assertions, Glatkowski does not teach a conductive color filter comprising a layer of carbon nanotubes covered by a layer

of colored polymeric resin binder. The reference to coloring agents (page 15, lines 5-6) is made only within the context of additional optional materials that may be incorporated in a nanotube dispersion suitable for forming the conductive nanotubes coating itself. While Glatkowski includes a teaching as to over-coating a nanotube film with a polymeric material (page 13, lines 16-17 as noted by the Examiner), there is no teaching to incorporate coloring agents in the over-coating to form a conductive color filter in accordance with the instant claimed invention. Further, there is in any event also no teaching to employ such over-coated embodiment as a filter as alleged by the Examiner (note that the only reference to a filter in Glatkowski as noted by the Examiner is found at page 14, lines 23-24, which only references the use of a plurality of differentially-oriented nanotube film layers forming filters or polarizers, not the use of a conductive nanotube layer and a colored polymeric overcoat layer). Accordingly, Glatkowski clearly does not anticipate the present claimed invention, and reconsideration of this rejection is respectfully requested.

The Examiner's additional comments regarding claims 5-6 and 22 are noted, but additionally are based on the incorrect assertion that the referenced embodiments of Glatkowski are directed towards a conductive color filter. To the contrary, the embodiments referenced at page 36 recite use of virgin resin overcoats to form clear and colorless films.

Claim Rejections - 35 USC § 103

Claims 3, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski. The Examiner states Glatkowski teaches a conductive color filter, comprising a layer of carbon nanotubules covered by a layer of colored polymeric resin binder, "as described above". The Examiner further states Glatkowski teaches that a layer of indium tin oxide (page 13, lines 20-25), which is a transparent conductive electrode as defined by Applicant (original claim 7), can be laminated with the conductive color filter (page 13, lines 20-25), that the laminate has alternating layers of nanotube-containing and non-nanotube containing layers (page 14, lines 1-2), and that it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided a transparent conductive electrode on the layer of carbon nanotubules, on the side opposite to the layer of colored polymeric resin binder,

so that the transparent conductive indium tin oxide electrode is in electrical contact with the conductive color filter of Glatkowski, in order to provide a preferred order of layers in the laminate, as taught by Glatkowski. This rejection is respectfully traversed.

As explained above, contrary to the Examiner's assertions, Glatkowski does not teach a conductive color filter comprising a layer of carbon nanotubes covered by a layer of colored polymeric resin binder. Further, the embodiment referenced at page 13, lines 20-25 is not in any way taught within the context of a color conductive filter as alleged by the Examiner. There is simply no teaching or suggestion to employ the referenced conductive layer of ITO in addition to a layer of colored polymeric resin binder. To the contrary, the referenced layer of ITO is apparently cited as one example of an inorganic or organic polymeric over-coating material that may be employed with the nanotube film (i.e., the ITO layer is apparently taught as an inorganic over-coat layer alternative to an organic polymeric resin overcoat layer, not as an additional layer to be employed in combination with a polymeric resin overcoat material).

The present invention enables the advantages of being able to initially coat a transparent conductive layer of non-colored carbon nanotubes employing known techniques, and also enabling subsequent formation of conductive colored filters by selective deposition of a colored resin binder, which avoids the complication of formulation and coating of colored carbon nanotube layers. In addition to not anticipating the present claimed invention, Glatkowski also clearly does not otherwise teach or suggest the present invention, and reconsideration of this rejection is respectfully requested.

Claims 2, 4, 10, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski as applied to claims 1, 3, 5-9, 22 above, and further in view of Ohtsu (US 6,436,591). Claims 11-13, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski as applied to claims 1, 3, 5-9, 22 above, and further in view of Ohtsu (US 6,436,591) and Chung (US 6,426,590). Claims 14-15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu and Chung, as applied to claims 11-13, 19 above, and further in view of Jones (US 5,672,938). Claims 16, 18, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu,

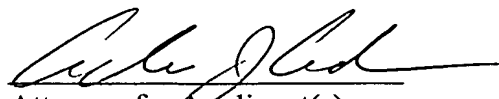
Chung and Jones, as applied to claim 14 above, and further in view of Boroson (US 6,226,890). Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu, Chung and Jones, as applied to claim 14 above, and further in view of Yamada (US 5,583,675). These rejections are respectfully traversed.

Each of these rejections are based on the Examiner's assertion that Glatkowski teaches a conductive color filter comprising a layer of carbon nanotubes covered by a layer of colored polymeric resin binder, which basic assertion is incorrect as explained above. The further cited references do not overcome the basic deficiency of the teachings of Glatkowski with respect to the present claimed invention, and a prima facie case of obviousness has accordingly not been established. All of claims 1-24 are therefore believed patentable for at least the same reasons as discussed above with respect to the rejections based on Glatkowski alone. Reconsideration of these rejections is accordingly respectfully requested.

Withdrawn non-elected process of making claims 25 and 29 include all the limitations of elected product claim 1. Accordingly, rejoinder of such withdrawn claims, and claims 26-28 and 30-31 dependent thereon, upon allowance of elected product claim 1 is respectfully requested.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.